

November 27, 1985

TO: Noncoal Files

FROM: Rick Summers, Reclamation Hydrologist <sup>RS</sup>

RE: Review of Tailings Pond, Chevron Resources, Vernal  
Phosphate Operation, Submittals of 10-28-85 (3 volumes),  
ACT/047/007, Uintah County, Utah

SUMMARY

The surface water hydrology sections of the proposed enlargement of the exiting tailings pond were reviewed. The applicant has over designed the impoundment significantly relative to our usual requirements (i.e. 100 year-24 hour event). A rainfall depth of 9.45 inches and a curve number of 91 were used to calculate a runoff volume of 2300 AF. A 100 year-24 hour event would generate about 600-700 AF, therefore the applicant is conservative in the design.

Recommendations:

Rules M-10(3)(13) - The applicant must obtain approval from the Division for designs to insure the impoundment will be non impounding and self draining 120 days prior to abandonment of the facility. Designs must be implemented at the site concurrently with final reclamation.

Technical Review

- |    |   |                  |
|----|---|------------------|
| 1. | Expected runoff volume:                         |                  |
|    | Area = 5 mi = 3200 acres                        |                  |
|    | Ppt = 9.45 (PMP); Ppt = 3.5" (100 year-24 hour) |                  |
|    | CN = 91 (undisturbed)                           |                  |
| 2. | PMF   | 100 Year-24 Hour |
|    | Q in = 8.36"                                    | Q in = 2.54"     |
|    | S = 0.99  | S = 0.99         |
|    | QAF = 2,228.9 AF                                | QAF = 676.6 AF   |

Applicant submitted 2300 AF, ok

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